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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/283,125	03/31/1999	BERNIE PAUL PEARCE	112025-0116	9537

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EXAMINER	
HOM, SHICK C	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/283,125	PEARCE ET AL.	
	Examiner	Art Unit	
	SHICK C. HOM	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12 and 14-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *6-9* is/are allowed.

6)☒ Claim(s) *1-5, 10-12, 14-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12 and 14-23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 14, 22 objected to because of the following informalities: In claim 22 line 1 delete typo "or claim 13," because claim 13 have been cancelled. In claim 14 lines 4-5 delete "each said station" and insert ---said each station--- for consistency with claim 14 line 7. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 14 lines 7-8 which recite "said ARP table" lack clear antecedent basis because no ARP table have been previously

recited in the claim and therefore the limitation is not clearly understood.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-5, 10-12 and 14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 5 of U.S. Patent No. 6,556,574 in view of Kawafuji et al. (5,999,536).

U.S. Patent No. 6,556,574 in claim 1 recite:

A method of updating route information for a Route Information Field (RIF) in a Source Routing Bridge (SRB) subnet having at least one bridge and at least one leg, comprising: transmitting an Address Resolution Protocol (ARM) Explorer request packet by a source station connected to said SRB subnet, said ARP Explorer request packet being copied onto each leg of said subnet at each bridge in said subnet; receiving a first ARP Explorer response packet by said source station, said first ARP Explorer response packet transmitted by an end station in response to said end station receiving said ARP Explorer request packet, and in response to receiving said first ARP Explorer response packet using RIF information found in said first ARP Explorer response packet as the path between said source station and said end station; initiating a timer by said source station, in response to receiving said first ARP Explorer response packet, said timer expiring after a predetermined timing interval; rejecting any subsequent ARP Explorer response packet received by said source station, and rejecting any RIF information contained in said subsequently received ARP Explorer response packet, which is received after initiating said timer and before expiration of said timing interval; and receiving a

next received ARP Explorer response packet from said end station after expiration of said timing interval.

U.S. Patent No. 6,556,574 in claim 5 recites:

The method as in claim 1 or claim 2 further comprising: said source station is a router, and writing RIF information carried in said first ARP Explorer packet, request or response, received by said router into an ARP table of said router to provide a route from said router to said end station.

U.S. Patent application 09/283,125

claim 1 recite:

A method for routing a source routed packet to a Source Route Bridge (SRB) subnet for a destination station, comprising: maintaining an address resolution protocol table (ARP table) in a router having an entry for each station on said SRB subnet to which said router routes packets, said entry having a first field containing a Layer 3 address of said each station, said entry having a second field containing a Layer 2 address of said each station including a physical (MAC) address and Route Information field information (RIF information) from said router to said each station; and writing said RIF information read from said second field of said ARP table into a Route Information

Field (RIF) in a message packet before routing said message packet to said SRB subnet for said destination station.

Claim 2 recites:

The method as in claim 1 further comprising: populating said RIF information in said ARP table by reading RIF information from a field of an All Routes Explorer (ARE) packet, either a request or response packet.

Claim 3 recites:

A method for routing a source routed packet to a Source Route Bridge (SRB) subnet for a destination station, comprising: maintaining an address resolution protocol table (ARP table) in a router having an entry for each station on said SRB subnet to which said router routes packets, said entry having a first field containing a Layer 3 address of said each station, said entry having a second field containing a Layer 2 address of said each station including a physical (MAC) address and Route Information Field information (RIF information) from said router to said each station; writing said RIF information read from said second field of said ARP table into a Route Information Field (RIF) in a message packet before routing said message packet to said SRB subnet for said destination station; and populating said RIF information in said ARP table by reading RIF

information from a field of an Single Routes Explorer (SRE) packet, either a request or response packet.

Claim 4 recites:

The method as in claim 1 further comprising: populating said RIF information in said ARP table by reading RIF information from a field of an ARP Explorer packet, either a request or response packet.

Claim 5 recites:

The method as in claim 1 further comprising: updating said second field of said ARP table when said router receives an ARP Explorer request packet from one of said stations on said SRB subnet and said request packet contains RIF information.

Claim 10 recites:

A router comprising: an address resolution protocol table (ARP table), said ARP table maintained in said router, said ARP table having an entry for each station on a Source Route Bridge (SRB) subnet to which said router routes packets, said entry having a first field containing a Layer 3 address of said station, said entry having a second field containing a Layer 2 address of said station including a physical (MAC) address and Route Information Field information (RIF information) from said router to said each station, and; a packet format circuit to write required RIF information read from said second field of

said ARP table into a Route Information Field (RIF) in a message packet before routing said message packet to a destination station on a destination SRB subnet.

Claim 11 recites:

A router for routing a source routed packet to a Source Route Bridge (SRB) subnet for a destination station, comprising: means for maintaining an address resolution protocol table (ARP table) in said router having an entry for each station on said SRB subnet to which said router routes packets, said entry having a first field containing a Layer 3 address of said each station, said entry having a second field containing a Layer 2 address of said each station including a physical (MAC) address and Route Information Field information (RIF information) from said router to said each station, and means for writing said RIF information read from said second field of said ARP table into a Route Information Field (RIF) in a message packet before routing said message packet to said SRB subnet for said destination station.

Claim 12 recites:

A computer readable device containing a computer program for performing a method of routing a source routed packet to a Source Route Bridge (SRB) subnet for a destination station, comprising: maintaining an address resolution protocol table

(ARP table) in a router having an entry for each station on said SRB subnet to which said router routes packets, said entry having a first field containing a Layer 3 address of said each station, said entry having a second field containing a Layer 2 address of said each station including a physical (MAC) address and Route Information Field information (RIF information) from said router to said each station, and writing said RIF information read from said second field of said ARP table into a Route Information Field (RIF) in a message packet before routing said message packet to said SRB subnet for said destination station.

Claim 14 recites:

An ARP table data structure stored in a computer memory of a router, comprising: an entry for each station on a Source Route Bridge (SRB) subnet to which said router routes packets, said entry having a first field containing a Layer 3 address of each said station, said entry having a second field containing a Layer 2 address of said station including a physical (MAC) address and Route Information Field information (RIF information) from said router to said each station, said RIF information in said second field of said ARP table used for writing RIF information into a Route Information Field (RIF) in

a message packet before routing said message packet to said SRB subnet for said each station.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the application's claims 1-5, 10-12 and 14 merely broaden the scope of the U.S. Patent No. 6,556,574 claims 1 and 5 by eliminating the limitations of independent claim 1 in claims 1-5, 10-12 and 14 of the application.

U.S. Patent No. 6,556,574 claims 1 and 5 disclose all the subject matters of application's claims 1-5, 10-12 and 14 with the exception wherein the address resolution protocol table (ARP table) having an entry for each station on said SRB subnet to which said router routes packets, whereby said entry having a first field containing a Layer 3 address of said each station, and said entry having a second field containing a Layer 2 address of said each station including a physical (MAC) address.

Kawafuji et al. from the same or similar fields of endeavor teach that it is known in the prior art to provide wherein the address resolution protocol table (ARP table) having an entry for each station on said SRB subnet to which said router routes packets, whereby said entry having a first field containing a Layer 3 address of said each station, and said entry having a

second field containing a Layer 2 address of said each station including a physical (MAC) address (col. 2 lines 20-26 recite the ARP table and Fig. 8B show the first field containing the IP address, i.e. Layer 3 address, and the second field containing the MAC address, i.e. Layer 2 address, for each station).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide wherein the address resolution protocol table (ARP table) having an entry for each station on said SRB subnet to which said router routes packets, whereby said entry having a first field containing a Layer 3 address of said each station, and said entry having a second field containing a Layer 2 address of said each station including a physical (MAC) address disclosed as prior art in Kawafuji et al. in the ARP table of U.S. Patent No. 6,556,574 being that it more efficiency for the design of the system since the system can uses known standard fields in the ARP table for routing packets at the communication network.

Further, it has been held that the omission of a element and its function is an obvious expedient if the remaining elements perform the same function as before. In re Karlson, 136 USPQ (CCPA). Also note Ex parte Rainu, 168 USPQ 375 (Bd.

App. 1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

Allowable Subject Matter

6. Claims 6-9 are allowed.

7. Claims 15-23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
Nelson et al. disclose an IP discovery apparatus and method.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHICK C. HOM whose telephone number is (571)272-3173. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Pham Chi can be reached on 571-272-3179. The fax phone number for the organization

where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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